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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/565,474	08/22/2006	Graham Mowbray	17480P037	9904

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EXAMINER

LE, DAVID D

ART UNIT	PAPER NUMBER
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3655

MAIL DATE	DELIVERY MODE
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04/15/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/565,474	MOWBRAY ET AL.	
	Examiner	Art Unit	
	DAVID D. LE	3655	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 March 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6,8,9,11-14 and 16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5,11-14 and 16 is/are rejected.
- 7) ☒ Claim(s) 6,8 and 9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>03/30/2010</u> . | 6) <input type="checkbox"/> Other: <u>Machine translation of JP2002-048199.</u> |

DETAILED ACTION

1. This is the fourth Office action on the merits of Application No. 10/565,474, filed on 22 August 2006. Claims 1-6, 8, 9, 11-14 and 16 are pending.

Documents

2. The following documents have been received and filed as part of the patent application:

- Copies of Foreign Priority Documents, received on 01/20/06
- Declaration and Power of Attorney, received on 08/22/06
- Information Disclosure Statement, received on 11/17/09
- Information Disclosure Statement, received on 03/30/2010

Continued Examination Under 37 CFR 1.114

3. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 30 March 2010 has been entered.

Information Disclosure Statement

4. The information disclosure statement (IDS) submitted on 30 March 2010 was filed after the mailing date of the notice of allowance on 17 February 2010. The submission is in

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compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Allowable Subject Matter

5. The indicated allowability of claims 1-6, 8, 9, 11-14 and 16 are withdrawn in view of the newly discovered reference(s) to JP 2002-048199. Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claim 16 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for embodiments as shown in Figs. 1-11, does not reasonably provide enablement for the claimed invention as recited in claim 16. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims.

Claim 16 recites the limitation "wherein the driveline has a single forward drive ratio, and the two speed transmission provides two forward drive ratios between the engine driveshaft and a drive propeller of the marine craft." The present specification does not appear to provide support for the driveline having a single forward drive ratio and the two speed transmission providing two additional forward drive ratios.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-5, 11-14 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP2002-048199 (hereinafter referred to as JP'199) in view of U. S. Patent Application Publication No. US 2002/0129671 to Yamasaki et al. (hereinafter referred to as Yamasaki).

Claims 1-5, 11-14 and 16:

JP'199 (i.e., Fig. 14 and the corresponding description) discloses a speed change mechanism and a speed change controlling method for marine propelling apparatus comprising:

- An input shaft (i.e., Fig. 14, element 37);
- An output shaft (i.e., Fig. 14, element 38) coaxial with the input shaft;
- A first gear train (i.e., Fig. 14, element 34) for transmitting drive from the input shaft to the output shaft at a first gear ratio;
- A second gear train (i.e., Fig. 14, element 40) for transmitting drive from the input shaft to the output shaft at a second gear ratio;
- A first friction clutch (i.e., Fig. 14, element 134) operable to engage/disengage the first gear train;

- A second friction clutch (i.e., Fig. 14, element 140) operable to engage/disengage the second gear train;
- Wherein the input shaft is isolated from driving interconnection with the output shaft by disengagement of both clutches (i.e., Fig. 14);
- Wherein in shifting between the first gear ratio and the second gear ratio one of the friction clutches is disengaged while the other friction clutch is engaged (i.e., Fig. 14);
- Wherein the first gear train includes a lay shaft (i.e., Fig. 14, element 34a) which is in driven engagement with the input shaft when the first friction clutch is engaged for operation at the first gear ratio, and wherein the lay shaft is isolated from direct driven engagement with the input shaft by disengagement of the first friction clutch (i.e., Fig. 14);
- Wherein the output shaft and input shaft are linked via the lay shaft which extends parallel to the input and output shafts (i.e., Fig. 14);
- Wherein gears of the input shaft and output shaft for transmitting drive to and from the lay shaft are located between the friction clutches and an output end of the output shaft (i.e., Fig. 14);
- Wherein a one-way clutch (i.e., Fig. 14, element 43) is incorporated in the first gear train; and
- Hydraulic control valves and solenoids (i.e., Figs. 17 and 18).

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JP'199 does not explicitly disclose:

- A control system for controlling the first and second clutches;
- Sensors for supplying information to the control system, the sensors including one or more of clutch pressure sensors, sensors measuring the speed of the input shaft and output shaft respectively and sensors providing information relating to the position of gears in the gear trains; and
- Control valves and electro-hydraulic solenoids to provide controlled clutch slip.

Yamasaki (Figs. 1-10; paragraphs [0004] – [0057]), on the other hand, discloses a transmission comprising:

- A control system for controlling the first and second clutches (i.e., Fig. 3 and paragraph [0043]);
- A sensor for measuring the speed of the output shaft (i.e., paragraph [0043]); and
- A hydraulic system commonly including at least a control valve and electro-hydraulic solenoid for controlling clutch slip (i.e., Fig. 2; paragraphs [0035] to [0041]);
- Wherein in shifting between the first gear ratio and the second gear ratio one of the friction clutches is disengaged using controlled slippage while the other friction clutch is engaged using controlled slippage (i.e., Fig. 3 and paragraph [0043]);

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- Wherein the gear trains are selected to provide a higher gearing and/or a lower gearing of the lay shaft when the second clutch is engaged (i.e., paragraphs [0005] to [0057]);

Since all the claimed elements were known in the prior art, one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

Allowable Subject Matter

10. Claims 6, 8 and 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAVID D. LE whose telephone number is (571)272-7092. The examiner can normally be reached on Mon-Fri (0900-1730).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Siconolfi can be reached on 571-272-7124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/David D. Le/
Primary Examiner, Art Unit 3655
04/09/2010

ddl